1.What are the two values of the Boolean data type? How do you write them?

Ans: True / False. It can be written as follows:

True ==1

False == 0

2. What are the three different types of Boolean operators?

Ans: The three Boolean operators are AND, OR and NOT.

3. Make a list of each Boolean operator's truth tables (i.e. every possible combination of Boolean values for the operator and what it evaluate ).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **condition 1 (e.g., X)** | **condition 2 (e.g., Y)** | **NOT X ( ~ X (NOT))** | **X AND Y ( X && (AND) Y )** | **X OR Y ( X || (OR) Y )** |
| false | false | true | false | false |
| false | true | true | false | true |
| true | false | false | false | true |
| true | true | false | true | true |

4. What are the values of the following expressions?

(5 > 4) and (3 == 5) ==🡺 False

not (5 > 4) ==🡺 False

(5 > 4) or (3 == 5) =🡺 True

not ((5 > 4) or (3 == 5)) =🡺 True

(True and True) and (True == False) =🡺 False

(not False) or (not True) =🡺 True

5. What are the six comparison operators?

i. Greater than ‘>’

ii. Less than ‘<’

iii. Greater than or equal to ‘>=’

iv. Less than or equal to ‘ <=’

v. Not equal to ‘!=’

vi. Equal to ‘==’

6. How do you tell the difference between the equal to and assignment operators?Describe a condition and when you would use one.

An; Assignment operator (=) is assigning the value to the varible e.g : a= ‘Apple’; here a is variable and ‘Apple’ is value.

Where as equal to operators (==) compare between two operands like 2==2

7. Identify the three blocks in this code:

spam = 0 =🡺 Block1

if spam == 10: =🡺Block2

print('eggs')

if spam > 5:

print('bacon')

else:=🡺 Block3

print('ham')

print('spam')

print('spam')

8. Write code that prints Hello if 1 is stored in spam, prints Howdy if 2 is stored in spam, and prints Greetings! if anything else is stored in spam.

Ans:

spam = 0

if spam == 1:

print('Hello')

if spam == 2:

print('Howdy')

else:

print('Greetings')

9.If your programme is stuck in an endless loop, what keys you’ll press?

Ans: CTRL + C: I tried but it did not work

10. How can you tell the difference between break and continue?

Ans: **Break** statement immediately interrupt exit the from the loop if conditions aligned while **continue** statement in Python will jump and run next loop in the program when particular condition meets.

11. In a for loop, what is the difference between range(10), range(0, 10), and range(0, 10, 1)?

Ans: All three expression will give same result so no difference. Possible difference is the way it executes internally?

range (10) =🡺 iterates from 0 through 9 in continuation like 0,1,2,3,4,5,6,7,8,9

range (0,10 =🡺 it iterates from 0 through 9 like above.

range (0,10,1) =🡺 It iterates from 0 through 9 with an interval 1 like above

12. Write a short program that prints the numbers 1 to 10 using a for loop. Then write an equivalent program that prints the numbers 1 to 10 using a while loop.

for i in range (0,10,1):

print(i+1)

i = 1

while(i<=10):

print(i)

i = i + 1

13. If you had a function named bacon() inside a module named spam, how would you call it after importing spam?

Import spam

spam.bacon()